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# **#BlackLivesMatter and #AliveWhileBlack: A Study of Topical Orientation of Hashtags and Message Content**

## **Abstract**

This study examines content differences between Twitter hashtags that indicate different topical orientations related to issues of racial discrimination, police violence, and structural inequalities. Two datasets representing #BlackLivesMatter and #AliveWhileBlack were examined to explore how message content varies based on topical orientation. A random sample of 600 tweets from each hashtag were classified based on content categories identified in previous scholarly work on collective coping and social movements. Two topic models were developed to further examine content differences between the two hashtags in a larger corpus of tweets. Results show that differences in hashtags can indicate significant differences in the nature of messages embedded in tweets. A  $\chi^2$  test revealed that distribution of tweets was differed between the two hashtags in six out of eight categories. Topic model analysis indicated that topics in the hashtag with activist/social movement orientation mainly related to issues/incidents that gained significant media attention.

Keywords: Collective coping, Twitter, Hashtags, Black Lives Matter

## **Introduction**

Social media users and traditional news media both increasingly report on protest events (Chadwick, 2013), resulting in “a dynamic, often hybrid information ecosystem where movement-based and social media-based actors are constantly aware of news media actions covering the protest, and news media actors of social media-based trends” (Bailo & Vromen, 2016). Each social media platform has unique social affordances that allow it to perform different functions than other social media platforms. In particular, hashtags – keywords or phrases preceded by the hash symbol (#) that are included as part of Twitter posts – may help to form ad hoc issue publics (Bruns & Burgess, 2011) by enabling clickable links that provide an index point to related content and allow real-time collocation and viewing of posts with the same hashtag.

Hashtags have emerged in response to racial discrimination, police violence, and structural inequalities against ethnic minorities. In particular, those related to inequalities affecting African-

Americans have become a common form of political engagement over the past several years. Among these are hashtags focusing on immediate responses related to physical incidents (e.g., #BaltimoreRiots, #Ferguson), sentiment sharing (#AliveWhileBlack), and activism (#BlackLivesMatter). Some hashtags display collective coping to manage trauma related to stressful events addressing racial discrimination, and while some others can be viewed in the context of social movements focused on racial justice. The objective of this study is to examine content differences between Twitter hashtags with different topical orientations related to racial discrimination, police violence, and structural inequalities against African Americans. We focus on two topical orientations related to the issue of racial discrimination: sentiment sharing and activism. We use the hashtags #AliveWhileBlack and #BlackLivesMatter, representing sentiment

sharing and activism respectively. The analysis was conducted in two steps. In the first step, we use two random samples from each hashtag to examine the extent to which the tweets indicate aspects of collective coping and engagement in a social movement. In the second step, we conduct a topic model analysis to identify ten topics from each hashtag.

## **Related work**

Racial discrimination is an issue faced by a collective, the African American community in this case. However, individuals may experience discrimination on an individual and/or group level. Therefore, social media reactions to such experience may take individual as well as more organized action. To capture the range of messages exchanged in response to the issue of racism, we examine two possible reactions to the issue: collective coping and social movement engagement. These two aspects help detect messages that take a more personal perspective as well as organized resistance. The following literature review covers previous work on collective coping and online social movements. Furthermore, we discuss the role of hashtags as social affordances and provide the background of Twitter activity related to the issue.

## **Collective coping via social media**

Collective coping describes the pooling of resources among several individuals to address problems or stressors (Lyons, Mickelson, Sullivan, & Coyne, 1998). When multiple individuals perceive a stressor as a common problem, they activate a process of shared coping, providing a foundation for social resiliency. Collective coping has been studied in different contexts, ranging from natural disasters (e.g., Tandoc Jr & Takahashi, 2016), violent attacks on citizens (Kaufmann, 2015), and celebrity deaths (e.g., Sanderson & Hope Cheong, 2010), to ongoing structural violence, like racial discrimination (e.g., Joseph & Kuo, 2009).

Social media platforms provide affordances for communal processes, making them avenues for collective coping. For example, collective coping strategies facilitated by Facebook in the wake of Typhoon Haiyan have been documented, such as informing friends and family about one's welfare and survival, facilitating the social construction of experience, and helping survivors come to terms with trauma experienced due to the event (Tandoc Jr & Takahashi, 2016).

Social media provide a unique opportunity for those affected to communicate. When considering Twitter as a platform, original tweets sent in a collective coping context may be more personal than retweets and @replies as they are not other-directed and, therefore, they are not oriented towards a particular imagined audience. However, retweets and replies can be more communal as they are directly relational (i.e., one has to select another user for a retweet, and mention the name of another user in a @reply).

Due to this difference, in a collective coping context where the individuals engaged are battling a political issue such as racial discrimination, it is possible that coping in the form of retweets and @replies constitutes a form of collective action that characterizes social movements. For instance, collective managing of trauma can range from broad topics, such as the welfare of a nation, to specific aspects, such as details of the stressful events themselves (Eriksson, 2016). Therefore, we argue that studies on collective coping related to discrimination should be situated in the context of collective activism/social movements.

## **Social movements and social media**

New Social Movements (NSMs) emerged in Western democratic societies in the late 1960s and early 1970s and represent "a diverse array of collective actions that have presumably displaced the old social movement of proletarian revolution associated with classical Marxism" (Buechler, 1995, p.442). NSMs place particular focus on issues of personal identity, equality, and providing rights to "historically marginalized communities" such as women, racial minorities, and the LGBTQ community (Hallsworth, 1994). Thus, NSMs seek to reveal institutional foundations of discrimination, "advance the position of marginalised groups within society", and remove or replace the institutional structures that enable discrimination (p. 9). Digital media have led to a reconceptualization of collective action, moving away from organization-centric views (Bimber, Flanagan, & Stohl, 2012). While organizations are still relevant, the "...digital-media environment prompts new and unforeseen opportunities for collective action as people are increasingly immersed in an atmosphere in which it is their routine practice to share ideas, connections, and interests" (Bimber, Flanagan, & Stohl, 2012, p.5).

The Arab Spring events initiated in late 2010 have led scholars to focus on the role of social media in social movements. Social media may help transform online activism into real-world protests (Juris, 2012; Lim, 2012) unify those with different backgrounds by creating "shared repertoires of contention" (Lim, 2012) and creating bridging social capital; foster collective identity (Milan, 2015) and oppose negative identification countermeasures fabricated by opponents (Treré, 2015); and bring user-generated stories and more traditional media into interdependence (Bailo & Vromen, 2016; Chadwick, 2013).

### **Social affordances of hashtags**

Social media platforms have various social affordances – cues in their design that enable, or constrain, particular actions related to a user's social environment (Hogan & Quan-Haase, 2010)[17]. Further, different social media platforms provide different sets of affordances, and these may also vary over time. For example, Twitter's features are "radically different from Facebook, and it is much more flexible in being used as both an information sharing network and a social networking platform. Relationships between Twitter users are unidirectional by design, but many relationships are reciprocated" (Bailo & Vromen, 2016, p.13). In 2009, Twitter began to hyperlink hashtags included in tweets together, and, in 2010, they added a "Trending Topics" section on the main page to provide a list of the most popular hashtags. Hashtags are keywords or phrases preceded by the hash symbol (#) that are included as part of Twitter posts. They are topical structures of connectivity enabled by social media affordances and are important in collective action, as they may help to form ad hoc issue publics (Bruns & Burgess, 2011) by enabling clickable links that provide an index point to related content and allow real-time collocation and viewing of posts with the same hashtag. Since 2013, hashtags that have emerged in response to racial discrimination and police violence against ethnic minorities, African Americans in particular, have become a common form of political engagement. Among these are hashtags focusing on immediate responses related to incidents (e.g., #Ferguson, #BaltimoreRiots, #AntonioMartin), sentiment sharing (#AliveWhileBlack), and activism (#BlackLivesMatter).

Arguably, the topical orientation of hashtags can attract different aspects of interaction. For instance, emotional messages may dominate hashtags used for sentiment sharing. Moreover, engagement-oriented hashtags can primarily include messages that indicate more organized activity. However, it is possible that these two phenomena are highly intertwined when used in

context of the same issue. Twitter, with its unique affordances, may perform different functions than other social networks. For instance, the 140-character limitation forces individuals to express messages in short pieces. Retweets and @replies constitute relational structures in Twitter networks. Thus, activists compose tweets to ensure rapid circulation of text and the possibility of “going viral” (Penney & Dadas, 2014), enabling messages to spread across clusters of users in hashtag networks for greater impact and prominence.

### **“Black Twitter”**

The presence of African-Americans on Twitter has been referenced a few ways. Statistically, Pew Research surveys going back to 2009 (Anderson & Hitlin, 2016; Duggan & Smith, 2013; Fox, Zickuhr, & Smith, 2009; Smith, 2011) indicate that black Twitter users outnumber white users, suggesting a new “digital divide” (Jeff Guo, n.d.). In terms of visibility, black Twitter users are algorithmically present in the “Trending topics” list (Sharma, 2013). This is due to short intervals between tweets that demonstrate frequency, regularity, and geographic proximity (Murthy, Gross, & Pensavalle, 2016)[25]. Twitter affordances for short, frequent, and interactive messages enable means of performing black identity through intensive and imitative repetition such as the practice of signifying that encourages discursive performativity and creativity (Brock, 2012, p.24). In this way, black Twitter users exhibit cultural iconography, social critique and group solidarity (Daniels, 2013). Categorically, “Black Twitter” is helpful as a heuristic toward restoring the typical erasure of black presence in information and communication technologies (ICTs) (Florini, 2013; Safiya Umoja Noble, 2013). However, scholars note that Black Twitter does not represent a black online community or public [26], but rather a public group of millions of black users on Twitter “networking, connecting, and engaging with others who have similar concerns, experiences, tastes, and cultural practices” (Daniels, 2013, p.225).

### **Context of #BlackLivesMatter and #AliveWhileBlack**

Mobile phones and social media have brought to the forefront of national news and public discussion ongoing systemic racism and violence towards African Americans by law enforcement. In 2013, a series of high-profile news stories related to police violence against African-Americans was circulated on social media, particularly Twitter, inflaming many citizens who expressed concern about the long history of racial injustice regarding blacks in America and present violence and social inequalities.

The #BlackLivesMatter movement first arose in July 2013, after George Zimmerman was acquitted in the shooting death of Trayvon Martin, an unarmed African-American youth. In the wake of the acquittal, three queer black women posted the hashtag #BlackLivesMatter on Twitter as “an ideological and political intervention in a world a world where Black lives are systematically and intentionally targeted for demise” (Alicia Garza, 2014, para. 2). #BlackLivesMatter gained traction in the mainstream media and rapidly developed into an international social movement spotlighting systemic racial injustice. The movement led to media spectacle, but much of the focus was on Black male criminality in service to profitable media industries and ignored police violence concerns for Black women and girls (Brendesha Tynes, Joshua Schuschke, & Safiya Umoja Noble, 2016; Noble, 2014). Additional events in 2014 united concerned citizens on multiple occasions to address police violence against African-Americans, including several highly publicized killings of unarmed African-American men, women, and children.

Beginning in August 2014, a series of riots occurred in Ferguson, Missouri, after the shooting death of Michael Brown and subsequent police response to protesters. The hashtag #Ferguson was used to communicate about this issue and to organize protesters. Later that year, a grand jury elected not to bring charges related to the death of Eric Garner, who died while being held in a chokehold by a police officer. Public protests in dozens of cities nationwide, and the hashtag #AliveWhileBlack, were used to share sentiment and tales about experiences of inequality. The militarized police response in Ferguson “led to a broader awareness of the racial makeup of police departments, the militarization of local police and the criminalization of the poor” (Capeheart, 2015, para. 8).

Hashtags, being social affordances, allow users to frame message content to specific domains. These domains may represent aspects of engagement related to the same issue. People tackle racial discrimination on social media on many levels, ranging from mere sentiment sharing to organized activity against targeted individuals or institutions. Our intention is to examine this in the context of Twitter activity related to discrimination against African Americans. Accordingly, the objective of this study is to examine content differences between Twitter hashtags created for sentiment sharing and social movements related to police brutality and racial discrimination against African Americans.

## **Method**

Data was collected using the social import plugin of the NodeXL template. This plugin allows obtaining data related to hashtag networks. Two post-Ferguson hashtag networks related to the issue of police brutality and racial discrimination were scraped – #AliveWhileBlack, and #BlackLivesMatter. Data on #AliveWhileBlack was obtained in the first and second weeks of December 2014. This period was appropriate to observe collective coping via Twitter as social media activity related to racial discrimination was high in November and December 2014. On November 25<sup>th</sup>, the grand jury decided not to indict Darren Wilson, the officer responsible for shooting Michael Brown. Civil unrest was high during that period and, on the first of December, President Obama asked more police officers to wear body cameras. #AliveWhileBlack tweets used for this study represent the engagement during this period.

The Michael Brown incident was followed by similar incidents, such as the death of Laquan McDonald in Chicago, Tamir Rice in Ohio, and Freddie Gray in Baltimore, resulting in further unrest among citizens. Other issue response hashtags, such as #WhoisBurningBlackChurches and #Baltimore emerged in response to major incidents. Throughout, #BlackLivesMatter was sustained as a common hashtag. The #BlackLivesMatter dataset for the study was obtained in the fourth week of September 2015, a time when the social media engagement of Black Lives Matter indicated collective action with an identity. The movement had evolved to such an extent that it was able to aid organization of a protest outside the Fourth Precinct police station for 18 days in November in response to the shooting death of James Clark in Minneapolis. Our intention was to collect data at appropriate times so that hashtags represent sentiment sharing/social movements, rather than capturing data at the same time. Accordingly, our data represent different, yet related, dimensions of responses related to the issue: 1) sentiment sharing (#AliveWhileBlack) and 2) social movements and collective action (#BlackLivesMatter).

Twitter data obtained via the API were analyzed on two levels: 1) a content analysis of a random sample of tweets, and 2) a topic model analysis of full datasets. In the first step, we classified random samples obtained from each hashtag based on eight categories identified in the literature

review. We consider communication about the stressor, communal coping orientation, providing advice and social support (Kaufmann, 2015) as key collective coping elements. Accordingly, three categories were used to observe collective coping in tweets. Previous studies point to the significance of establishing and maintaining collective identity in social movements (Kavada, 2015; Liu, 2015; Treré, 2015). Thus, three categories were used to examine whether Twitter users engage in the creation and performance of identity using the two hashtags selected (defining the boundaries of the collective, maintaining collective identity, and inter- and intra-group communication). Two more categories were used to further examine engagement in a social movement (information dissemination and coordinating activities). Table 1 provides definitions and examples for each category.

A random sample of 600 tweets was taken from each hashtag for the content analysis in the first step. After removing duplicates, the initial dataset included 1122 tweets representing both hashtags. Each tweet was coded manually to identify coping and social movement aspects. Although categories within each dimension were not treated as mutually exclusive, as several aspects of coping or social movement actions can occur in single tweets, each tweet was identified with a specific category. Moreover, coping and social movement actions were not considered mutually exclusive, as coping may occur in the context of social movements. A second coder examined the classification to ensure accuracy, and Scott's pi demonstrated a high degree of intercoder reliability ( $\pi = 0.924$ ). Tweets that could not be included in any of the categories were removed from further analysis. The final sample included 909 tweets (81% of the tweets included in the initial dataset), with 449 tweets representing the hashtag created for coping (#AliveWhileBlack) and 460 tweets representing the hashtag with a social movement orientation (#BlackLivesMatter). We used the  $\chi^2$  test to examine differences between tweets representing each hashtag. We hypothesized that communal coping is more prevalent among those who use coping-oriented hashtags than hashtags with social movement orientation.

In the second step, the R 'tm' package was used to develop two topic models to further examine content differences between the two hashtags. Topic models were developed using the Latent Dirichlet Allocation (LDA) method. This technique considers documents as consisting of identifiable topics. The entire collection of tweets (12,776 #AliveWhileBlack and 11,864 #BlackLivesMatter tweets) was used to identify 10 topics for each hashtag. This analysis was important due to two reasons. First, it does not limit the scope of content analysis to predefined categories, allowing a more exploratory interpretation of tweets. Second, as this is an automated, natural language processing technique, the sample is not limited to a small number of tweets.

**Table 1: Content dimensions, categories, and examples**

Topical Orientation and Indicators	Definition/Example
Collective Coping	
Communication about the stressor (COMSTRS)	Providing details of the stressor, such as what happened, and possible effects of the situation [4]. (Example: "At predominantly white school kids used to get away with calling me a n[*****] but I'd get in trouble for retaliating. #alivewhileblack")
Communicating communal coping orientation (COMCOP)	Tweets that display communal coping orientation, "a belief that joining together to deal with a particular problem is beneficial, necessary and/or expected" [4, p. 584]. (Example: #alivewhileblack people are speaking up and speaking out. It's time we started listening.)

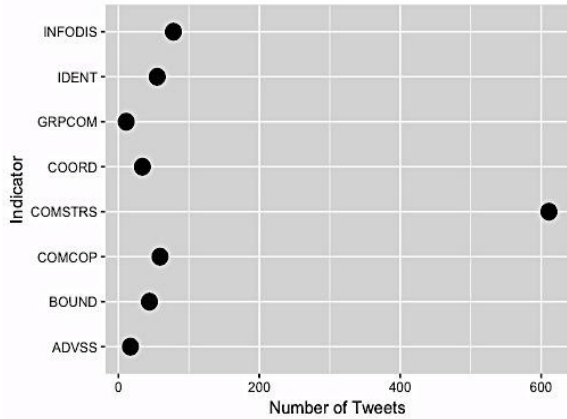
Advise and social support (ADVSS)	Tweets that provide advice on how we should think and what we should do in order to cope with the trauma, and offer support for those are in need for social support. (Example: #MLK had a dream, I believe it's our responsibility to continue that dream. #BlackLivesMatter)
<b>Social Movement Activity</b>	
Defining the boundaries of the collective (BOUND)	Describing what the movement is, what its objectives are, and how different it is from other movements. (Example: #AllLivesMatter would be reasonable if it was everyone being looked down on or being killed. But forever its #BlackLivesMatter)
Maintaining collective identity (IDENT)	Messages that help sustain and perform the identity of the movement (Example: Out here with this #BlackLivesMatter shirt on today girl!! Try it and get run up on <a href="https://t.co/CtWqjQdV11">https://t.co/CtWqjQdV11</a> )
Inter- and intra-group communication (GRPCOM)	Communicate with active members as well as those who consider themselves as members of the movement. (Example: Oppressors are trying to condition you to accept their abuse, and they are working hard at it. Reject it in all forms. #BlackLivesMatter!)
Information dissemination (INFODIS)	Providing information to educate people about the issue the movement attempts to address and make them aware of the activities of the movement. (Example: Our latest e-newsletter with a Message From Dr. Cornel West: Will You Help #RiseUpOctober? <a href="https://t.co/hX9uxBhgJM">https://t.co/hX9uxBhgJM</a> ... #BlackLivesMatter)
Coordination of activities (COORD)	Messages used to organize online or offline activities, such as petitions, meetings, marches, protests. (Example: "BOSTON FOLKS!!!!This Evening @ 6 PM Grove Hall - Unity Plaza #BlackLivesMatter #NativeLivesMatter )

## Findings

The classification results (Figure 1) showed that communicating about racial discrimination was the most common category of tweets in both samples. Altogether, 611 tweets (67% of the tweets in the sample) were in this category. Dissemination of information, though not prominent as direct communication about the stressor, was the next most tweeted category (9% of tweets in the sample, n= 78).

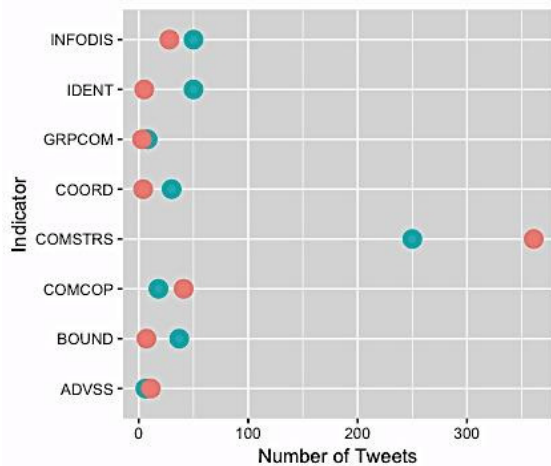
Remaining tweets indicated somewhat even distribution among the other categories; COMCOP: 6% (n= 59), ADVSS: 2% (n= 17), BOUND: 5% (n= 44), IDENT: 6% (n= 55), GRPCOM: 1% (n= 11), COORD: 4% (n= 34).





**Figure 1: Frequency of tweets for indicators**

Figure 2 shows the distribution of tweets among content categories based on the hashtag. It is noticeable in this figure that there are differences between the two hashtags for most of the indicators



**Figure 2: Frequency of tweets by hashtag**

Colors- Red: #AliveWhileBlack, Blue: #BlackLivesMatter

Table 2 shows frequencies and percentages for each hashtag and  $\chi^2$  test results for differences between the hashtags. The  $\chi^2$  test examined the null hypothesis that, for each indicator, distribution of tweets is not different between the two hashtags. The test was significant for all except two categories (advise and social support, and inter- and intra-group communication). The results showed that two aspects of communal coping (communication about the stressor, and indicating communal coping orientation) are more prevalent among those who tweeted with the hashtag associated with coping orientation. Conversely, two important aspects of online social movements (information dissemination, and coordination of activities) were more visible among users of #BlackLivesMatter. This finding is congruent with a recent Pew report that determined that most tweets in the #BlackLivesMatter hashtag were generally supportive of the movement (Anderson & Hitlin, 2016)[22]. Accordingly, the results support the hypothesis that communal coping is more prevalent among those who use coping oriented-hashtags.

Table 3 and 4 show results of the topic model analysis. The topics identified in the collection of #BlackLivesMatter tweets (Table 3) centered around specific incidents of brutality that gained high media attention. Names of victims, such as Tyrone Bass, Jeremy McDole, and Keith McLeod appeared in six out of ten topics in #BlackLivesMatter sample. Particularly, specific incidents, such as the shooting death of McDole, the African American victim who was in a wheelchair when he was shot, appeared in #BlackLivesMatter topics. However, tweets containing #AliveWhileBlack indicated signs of a more community-level discussion in which users share experiences on issues faced by the ethnic minority. Topics in this sample did not evolve around the main incidents. Instead, they indicated community-level incidents of racism, such as accusations of shoplifting and unfair inspection by the police officers, as well as broad topics like racial history and employment.

**Table 2: Percentages and  $\chi^2$  test results**

Indicator	Frequency and Percentage		$\chi^2$	p
	Social Movement	Collective Coping		
Communication about the stressor (COMSTRS)	250	361	53.597	.000
	40.9%	59.1%		
Communicating communal coping orientation (COMCOP)	18	41	9.004	.003
	30.5%	69.5%		
Advise and social support (ADVSS)	6	11	1.378	.240
	35.3%	64.7%		
Defining the boundaries of the collective (BOUND)	37	7	22.268	.000
	84.1%	15.9%		
Maintaining collective identity (IDENT)	50	5	40.363	.000
	90.9%	9.1%		
Inter- and intra-group communication (GRPCOM)	8	3	2.425	.119
	72.7%	27.3%		
Information dissemination (INFODIS)	50	28	7.384	0.007
	64.1%	35.9%		
Coordination of activities (COORD)	30	4	21.317	0.000
	88.2%	11.8%		

**Table 3: Results of the topic model analysis (#BlackLivesMatter)**

Topic	Words					
Topic 1	even	thought	doubt	calfreedommo m	callisto	entertain
Topic 2	police	tyronebass	murder	know	facts	life
Topic 3	alllivesmatt er	jeremymcd ole	slavery	long	right	everyon e
Topic 4	man	black	jeremymcd ole	murdered	another	unarmed

Topic 5	jeremymcdole	stop	keithmcleod	deray	chillin	list
Topic 6	day	police	spend	work	awesome	violence
Topic 7	white	justiceorelse	killed	wheelchair	femangei	officialnoi
Topic 8	lives	matter	cops	just	black	don't
Topic 9	black	people	apparently	like	jeremymcdole	hands
Topic 10	black	police	jeremymcdole	cnn	don't	one

**Table 4: Results of the topic model analysis (#AliveWhileBlack)**

Topics	Words					
Topic 1	police	black	racism	ericgarner	world	new
Topic 2	told	got	white	bc	school	thought
Topic 3	race	black	job	almost	country	asking
Topic 4	ask	black	want	people	first	like
Topic 5	don't	still	walking	look	told	law
Topic 6	police	house	black	just	guns	cops
Topic 7	read	take	time	two	americas	different
Topic 8	cops	friend	accused	stolen	shoplifting	pregnant
Topic 9	cop	pulled	car	white	went	police
Topic 10	us	race	history	relations	concise	ablacktweeter

## Discussion

Overall, the results show that topical orientation results in significant differences in the content of tweets. Analysis in the first step supports the hypothesis that communal coping is more prevalent among those who use sentiment-sharing hashtags than hashtags with social movement orientation. Although the results did not reveal significant differences between the two hashtags for two indicators (advice and social support, and inter- and intra-group communication), this could be due to a lack of observations in the sample for these categories. With almost 60% of tweets, communication about the stressor was the most prominent indicator of coping in both hashtags. Although #AliveWhileBlack had a significantly higher number of tweets sharing experiences of African-Americans, #BlackLivesMatter was also dominated by tweets that described the stressor. A race-related stressor results from an individual being included in a particular racial group. When individuals experience such stress, it is logical that they share the experience with the group. Hashtags emerging in response to the stressor can provide users access to real and imagined audiences that may include people with similar sentiments, providing a space for sharing experiences. According to the above results, this is the main function of Twitter in communal coping. This is consistent with the observation that social media users take part in social construction of the experience as part of coping with the consequences of a disaster (Tandoc Jr &

Takahashi, 2016). Although the previous work focused on a natural disaster, both hashtags used in this study display a similar dynamic.

Groups that cope with a social issue can use interactive platforms where they can respond as collectives. This requires that users display communal coping intention, rather than merely tweeting about causes of the stress, and provide social support on social media. However, these two aspects were minimal in both hashtags. The hashtag with a sentiment-sharing orientation (#AliveWhileBlack) included only 41 tweets that displayed communal coping intention within the hashtag (9.9%). Only 11 tweets in this set provided advice and social support. Similarly, only 18 tweets in #BlackLivesMatter displayed communal coping intention within the hashtag (6.5%), while six tweets provided social support and advice. This shows that, although Twitter provides affordances to participate in a public that is organized around the hashtag, users rarely moved beyond exchanging details about the issue.

The topic model analysis indicated that topics in the hashtag with activist/social movement orientation mainly related to issues or incidents that gained significant media attention (e.g., the death of Jeremy McDole). This might be due to the fact that Black Lives Matter as a social movement evolved in response to and against the deaths of African Americans by police action. The hashtag with coping orientation revealed a different layer of topics that reflect community-level incidents of discrimination. This indicates that the topical orientation can lead the nature of messages shared through Twitter in response to an issue.

Our results need to be interpreted in the context of what it is like to be black in America. Although some argue that we live in a post-racial society, the evidence is overwhelming that deep racial inequality still exists (Michelle Alexander, 2012; Picca & Feagin, 2007). In turn, racial inequality shapes and is built into our technologies, and the Internet is no exception (Nakamura & Chow-white, 2012; Noble & Tynes, 2016; Peña, 2010). Therefore, racism is a structural inequality that continually affects the everyday lives of African-Americans. As noted by (Noble, 2014)[31], the “extrajudicial killings” of black people in the United States is almost a predetermined fact of life based on the dominant power structures that:

bolster everything from Stand Your Ground legislation to the commercial rap music industry-prison-industrial complex. In each of these interests, the criminality of black people is fundamental to the profit structures and power that are secured by proving over and over again that black life is expendable when it allegedly is where it doesn’t belong... (p. 14)

In the case of Trayvon Martin, the media spectacle was a result of his violent death in a private, gated, white community in which he had a right to be. This horrible injustice is yet another reminder for African-Americans that there is still a long way to go toward racial equality and social justice. In this regard, we argue that collective coping in #BlackLivesMatter is notably different than in a terrorist attack, ecological disaster, or celebrity death. Whereas the latter are one-time events, #BlackLivesMatter concerns are an everyday reality for many in the black community. Coping with the trauma of racial injustice may require more individual and reflective coping strategies, such as self-care and spirituality, where “participants see love as integral to the movement’s success” (Brendesha Tynes et al., 2016, p.35).

The potential of social media platforms to facilitate meeting these needs has not been adequately achieved. In other words, a group that is limited to mere experience sharing may not receive the full benefits of communal coping. For instance, ‘banding together’ offers benefits, such as relationship development and maintenance, well-being and resilience of the collective, social integration, and the excitement of overcoming adversity as a collective (Lyons et al., 1998). A collective limited to experience sharing may not obtain those benefits. However, development of

such rewarding interaction may not be possible in a space where members are scattered across a large geographic area and have their own follower relationships.

Although communicating about the stressor was the main aspect of communication in both hashtags, #BlackLivesMatter indicated more social movement engagement than #AliveWhileBlack. This shows that a hashtag created for activism can display more elements of engagement than others. Of #BlackLivesMatter tweets, 199 (44.3%) indicated social movement activity, and 19% either defined or maintained the identity of Black Lives Matter as a social movement. While coordination of activities was almost non-existent in the hashtag with collective coping orientation, #BlackLivesMatter included 30 tweets (7%) used to organize activities. Inter- and intra-group communication was almost non-existent in both hashtags. This shows that although the hashtag provided a topically connected space for interaction, organized collective effort is not the primary Twitter activity in this case. This can possibly show the nature of less-concrete online issue publics that form around a collective identity. Twitter hashtags provide an opportunity for any Twitter user to engage. This results in participation of individuals spread across geographic areas that may not necessarily be willing to form a movement with well-defined membership. Accordingly, contemporary social movements that perform via social networks may not necessarily function as a single unit.

## Conclusion

This study examined how message content varies based on the topical orientation of hashtags. A random sample of 600 tweets from each hashtag were classified based on content categories identified in previous scholarly work on collective coping and social movements. Two topic models were developed to further examine content differences between the two hashtags in a larger corpus of tweets. A  $\chi^2$  test revealed that distribution of tweets differed between the two hashtags in six out of eight categories. Topic model analysis indicated that topics in the hashtag with activist/social movement orientation mainly related to issues/incidents that gained significant media attention.

These results suggest that the affordance to create a topical orientation via hashtags can determine, to a certain extent, the nature of the discussion related to the issue. Although content differences between the two hashtags were significant for six out of eight indicators, the results showed that coping occurs to a considerable extent in hashtags created with a social movement orientation. This shows the inseparability of collective coping from engagement in social movements online. However, communication about the issue is the most prominent form of online coping, at least within the limits of our data.

One has to communicate issues to collectively cope with them in order to be part of a collective that seeks to address them. In this case, both hashtags provided the topical orientation to communicate about the stressor. Therefore, it is important to see #BlackLivesMatter as a topical space where individuals cope with the issue while engaging in activities to address it. However, #BlackLivesMatter serves a broader purpose than #AliveWhileBlack by enabling a topical space for more activism-oriented interaction. The prominence of messages that communicate about the stressor in #BlackLivesMatter shows that online engagement via this hashtag is still centered on discussion rather than protest action. On one hand, this can result from the less-concrete nature of online engagement. On the other hand, it is possible that #BlackLivesMatter has still not reached the point where the primary focus is on promoting activism, which arguably occurs after the members come to terms on the issue and understand the need for more active engagement. This

demands longitudinal work to examine content differences between the same hashtags throughout a longer period of time. Such work can reveal the potential and transformation of #BlackLivesMatter as a social movement. Twitter users exchange different types of messages; original tweets, retweets, and @replies. While the original tweets are not-other directed, retweets and @replies constitute interactive structures in Twitter networks. Therefore, further work on this topic may examine content exchanged via other-directed tweets (retweets and @replies). Accordingly, future studies can examine how twitter users form retweet or @reply clusters based on coping or activism orientation. For instance, clusters of users connected via @replies or retweets may move beyond mere exchange of information to more engagement forms of coping and/or social movement engagement.

While the above analysis provides interesting insight to understand the relationship between topical orientation and message content, the inadequacy of tweets to represent advice and social support, and inter- and intra-group communication may have affected the results. Therefore, further work may include a larger sample that can provide evidence of differences between hashtags for these two categories. Also, evidence for individual coping strategies such as self-care and spirituality should be examined when addressing social justice inequalities through Twitter communities. Moreover, we observed a limited number of tweets that question and reject #BlackLivesMatter, indicating a “shared repertoire of contention” (Lim, 2012). This should be examined further with an analysis of cross-ideological interaction related to the issue.

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